A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H05K13/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{H05K} & \mbox{H01L} & \mbox{B65G} \end{array}$ 

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
χ	EP 0 942 641 A (JUKI KK) 15 September 1999 (1999-09-15)	1-6,8
A	column 3, paragraph 20 - column 5, paragraph 35; figure 1	7
X	DE 100 31 933 A (MATSUSHITA ELECTRIC IND CO LTD) 19 April 2001 (2001-04-19)	1-3
A	column 3, line 19 - column 5, line 3; figures 1,2	4-8
Α	US 5 894 657 A (ENCHI KOHEI ET AL) 20 April 1999 (1999-04-20) column 3, lines 1-27; figures	1-8
A	EP 0 514 975 A (PHILIPS NV) 25 November 1992 (1992-11-25) column 5, lines 20-37; figures	1-8
	-/	-
χ Fur	ther documents are listed in the continuation of box C.  Patent family members are list	ed in annex.

Turner documents are listed in the continuation of box C.	Patent family members are listed in annex.		
<ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered to be of particular relevance</li> <li>"E" earlier document but published on or after the international filing date</li> <li>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>"O" document referring to an oral disclosure, use, exhibition or other means</li> <li>"P" document published prior to the international filing date but later than the priority date claimed</li> </ul>	<ul> <li>*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>*&amp;* document member of the same patent family</li> </ul>		
Date of the actual completion of the International search  19 October 2004	Date of mailing of the International search report  27/10/2004		
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer Clivio, E		

## INTERNATIONAL SEARCH REPORT

IB2004/051370

Category* Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A US 5 864 944 A (MORITA TAKESHI ET AL) 2 February 1999 (1999–02–02) the whole document  1-8	C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT									
A US 5 864 944 A (MORITA TAKESHI ET AL) 2 February 1999 (1999-02-02) the whole document	Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.							
	Category °	Citation of document, with indication, where appropriate, of the relevant passages  US 5 864 944 A (MORITA TAKESHI FT AL)								

## INTERNATIONAL SEARCH REPORT

IB2004/051370

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0942641	Α	15-09-1999	JP	11330795 A	30-11-1999
			US	6148511 A	21-11-2000
			DE	69905086 D1	06-03-2003
			DE	69905086 T2	16-10-2003
			EP	0942641 A2	15-09-1999
DE 10031933	Α	19-04-2001	JP	2001015988 A	19-01-2001
			CN	1279579 A	10-01-2001
			DE	10031933 A1	19-04-2001
			US	6729017 B1	04-05-2004
US 5894657	Α	20-04-1999	JP	8162797 A	21-06-1996
EP 0514975	Α	25-11-1992	EP	0514975 A1	25-11-1992
			JP	5198994 A	06-08-1993
*** <b></b>			US	5216804 A	08-06-1993
US 5864944	Α	02-02-1999	JP	3336844 B2	21-10-2002
			JP	9186492 A	15-07-1997
			JP	3211649 B2	25-09-2001
			JP	9214195 A	15-08-1997
			CN	1161633 A ,B	08-10-1997
			JP	3365398 B2	08-01-2003
			JP	2000357894 A	26-12-2000
			JP	3371891 B2	27-01-2003
			JP	2000357895 A	26-12-2000
			JP	3365399 B2	08-01-2003
			JP	2000357898 A	26-12-2000
			JP	3365400 B2	08-01-2003
			JP	2000357899 A	26-12-2000
			JP	3365401 B2	14-01-2003
			JP	2000357900 A	26-12-2000
			KR	275086 B1	15-12-2000
			SG	52900 A1	28-09-1998